ONR Symposium on Intellectual Property and the University-Industry Partnership

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Partnerships that Work and Those that Don't

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University-Industry-Government Partnerships: 3 Stories

- The Partnership that Worked
  - Parties:
    - Large Aircraft Company - technology user (Lead)
    - Mid-size Manufacturer - technology manufacturer
    - M.I.T. - Research/background technology
    - NRL - Research
    - ONR - Federal Awarding Agency - ARPA funds
  - Agreements used:
    - Cooperative Agreement: ONR & Lead
    - Collaboration Agreement: Among the 3 Participating Parties
    - CRADA: Lead and NRL

The Partnership that Worked

- The Issues
  - How is the research direction of the three parties to be determined
  - How are technical decisions among the parties made
  - Who owns intellectual property developed solely by one party/in collaboration with other parties
  - What rights do the parties have to utilize the intellectual property of the others
  - Where do the commercialization rights lie
  - Can ONR accommodate the “special” needs of the parties, especially the manufacturer (bringing considerable pre-existing technology with it)

The Partnership that Worked

- How the Issues were Resolved
  - Teaming Meeting (all parties) agreeing on principles of relationship
  - Implementing decisions made by Executive Committee (unanimous)
  - Each party retained ownership of its IP; if jointly developed owned jointly
  - Rights to practice IP of others, as needed, for program purposes only
  - Manufacturer received time-limited first option for exclusive license to inventions (royalty-bearing)
  - No background rights granted (but the MIT P.I.'s existing technology was reserved for licensing if needed)
  - ONR made several accommodations needed by the manufacturer: long period of GPLR in commercialized software; agreeing NOT to take delivery of a control system from the manufacturer (primarily developed at private expense); moderated foreign access restrictions -foreign parent

The Partnership that Worked

- What the Partnership Accomplished
  - ARPA: Commercially viable technology developed
  - Aircraft company: Low cost manufacturing = lower costs
  - Manufacturer: Developed a commercial device for new sales
  - M.I.T.: Education of graduate students/technology advanced
  - NRL: Industrially relevant technology developed
  - ONR: Success as administrative partner providing solutions to potential barriers
  - All: Successful collaboration using technical and financial assistance from noncompetitive organizations

The Partnership that Nearly Failed

- The Partnership that struggled
  - The Parties
    - Lead research university
    - NSF
    - 5 subawardee universities/hospitals
  - Agreements used:
    - NSF Grant for an Engineering Research Center
    - Sub-grants to participating universities/hospitals
    - Agreement by participants on a common IP policy

The Partnership that Nearly Failed

- The Issues
  - NSF's desire to make "core technology" available for anyone to further develop (no exclusivity available)
  - Lead scientists micro-managing marketing strategies
  - Unrealistic expectations (industrial "cost-sharing" through participation - company-funded IP surrendered to the "core")
  - Requirements to place new technology into managed core; permission from non-legal entity required to grant commercial licenses; background rights obligations; convincing universities to pay patent costs where patents are only non-exclusively licensed;
  - Dragging research results into "core": A reach-through tainting all related work of all participating investigators as "encumbered"

The Partnership that Nearly Failed

- How the issues were resolved
  - MIT and other universities said “no” to original IP plan
  - Representatives from all TT offices agreed to work together and design a new, workable IP plan
  - Revised agreement defined “Core Technology”. Set up a reasonable “core” identification scheme minimizing “taint”; contribution of background technology made voluntary; participating institutions to manage their own IP under common terms; IP steering committee set up to include scientists and TT specialists from each institution; exclusive licensing OK if IP committee approves; revised strategy for industrial funding, including possibility of exclusive licenses to new applications.

The Partnership that Nearly Failed

- Lessons learned
  - Where relationship depends upon participation of multiple parties, all parties must have a seat at the negotiating table. Top down, imposed terms don't yield positive results
  - Development of intellectual property (and rights attached) must be recognized as an outcome of government-funded research
  - Most academic research institutions have IP policies. Terms and conditions among participants must recognize/accommodate them
  - All major research universities have experienced TT staffs. They are better at managing IP than scientists or the government
  - Relationships based on partnership among equals work best

Government-Industry-University Relationships that Disrupt the Partnership

- The Illusory Partnership
  - Parties:
    - Funding Agency (NSF, DARPA)
    - Industrial Consortium/Industrial Association (cost-share)
    - Prime Research University
    - Participating Research Universities
  - Agreements used:
    - Cooperative Agreement, OT: Agency and Industrial Party
    - Industrial Contract: Industrial Party and Prime University
    - Sub-contracts: Prime University and Participating Universities

The Illusory Industry-University Partnership

- The Issues
  - Industry contract terms applied to commingled (mixed) “pot” of federal and industrial funds
  - Terms commonly found in “mixed-funded contracts”
    - Required royalty-free, non-exclusive commercial license rights (patents, copyrights, software) to Association and its members with right to sublicense others
    - Required royalty-free, exclusive license (patents, software) to Association w/right to sublicense members (shared royalties)
    - Obligation to file patent applications if directed by Industrial group
    - Background rights to universities’ existing/to be developed “unfunded” IP if needed by Association/members to commercialize

The Illusory Industry-University Partnership

- Breaking the Government-University Partnership
  - Federal non-profit terms and conditions (Bayh-Dole, FAR/grant data, software rights) lost
  - Publication delays imposed
  - Universities' right to control disposition of their own IP is lost
  - Commercial background rights applied to federally funded IP
  - Incentives to innovation lost by loss of patent rights and "pull" of background rights
  - All funding "tainted" by industrial terms creating barriers to collaboration with others inside or outside of university
  - Effective commercialization stymied

The Illusory Industry-University Partnership

- Breaking the Industry-University Partnership
  - Participating universities have no seat at the table until they say “no” to the terms
  - Creates a tug of war between industrial association controlling its & federal purse-strings and universities controlling needed technical/scientific expertise
  - Industry usurps usual role of government agency and upsets government-university Bayh-Dole/regulatory balance. Government defers to industry.
  - Partnership becomes “contracted-for” research services

Maximizing Results Through Quality Partnerships

- Universities respond most productively when the relationship is a true partnership among the parties. Contractual requirements which require the university to “wall-off” projects from the community are not attractive to high-performing scientists/educators and stifle innovation
- Establishing principles to guide the relationship keeps the Program focused on goals and keeps negotiators from polarizing the parties
- Where university/all participants have a seat at the negotiating table, problems are worked out in advance. Careful planning carries rewards
- Flexibility among partners allows goals to be realized
- Recognizing technology transfer/IP management policies, requirements, goals of the participants must be part of pre-planning
- Agencies leveraging w/industrial funds need to know the game plan